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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,707	03/30/2001	Val J. Dare-Bryan	105760	4480

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EXAMINER

SLITERIS, JOSELYNN Y

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 10/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,707

Applicant(s)

DARE-BRYAN, VAL J.

Examiner

Joselynn Y. Sliteris

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-22 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 28 (Figs. 3, 4). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

— "28" used to designate both drive unit & rubber support (Fig. 5)
(Figs 2, 3)

Specification

2. The disclosure is objected to because of the following informalities: on pg 3 line 22, "upwardly" should be --downwardly--; on pg 5 line 27, "greater" should be --lower--.
Appropriate correction is required.

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: in claim 1 lines 6-9, "a transmission unit ... being extendible and retractable between the drive unit and the wheel to accommodate pivoting of the suspension member relative to the chassis"; in claim 12 lines 1-4, "the transmission unit comprises ... chassis"; in claim 13 lines 1-5, "the transmission unit ... wheel"; in claim 20 lines 1-4, "each of said at least two transmission units ... wheels"; in claim 21 lines 1-5, "each of said at least two transmission units ... wheel".

Claim Objections

- ✓ 4. Claims 16-22 are objected to because of the following informalities: in claim 16 line 6, "unit" should be --units--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 16-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- ✓ 7. Regarding claim 16, the recitations "which are of said wheels" in line 8, "said one of said drive units" in lines 9 & 11, and "said one of said wheels" in lines 9-10 & 11 lack proper antecedent basis in the claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-6, 8-10, and 12-15, as best understood and in the broadest interpretation, rejected under 35 U.S.C. 102(b) as being anticipated by Krude (U.S. Patent 4,974,697).

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10. Regarding claim 1, as best understood and in the broadest interpretation, Krude discloses a wheel suspension assembly as in the present invention comprising:

a suspension member 52, 54 which is rotatably attached to the chassis 10, 14, 16, the suspension member being designed to rotatably receive a wheel 50;

a drive unit 24 which is mountable on the chassis; and

a transmission unit 60, 62, 64 being extendible and retractable between the drive unit and the wheel.

11. With respect to claims 2-6, 8-10, and 12-15, as best understood and in the broadest interpretation, Krude discloses the suspension assembly:

- further comprising a transverse beam 18 attached to the chassis, the suspension member being attached to the transverse beam;
- wherein the suspension member is attached to the transverse beam at one end of the beam;
- further comprising vibration isolators 20, 21 between the beam and the chassis 10, 14, 16;
- wherein the transmission unit comprises a gear reduction unit;
- further comprising a control unit;
- wherein the drive unit is a motor;
- further comprising a pivot which is rotatably attachable to the chassis, the suspension member being attached to the pivot;
- wherein the suspension member 54 is a trailing arm suspension unit 70

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- wherein the transmission unit comprises a constant velocity joint 60, 64 being extendible and retractable between the drive unit and the wheel;
- wherein the transmission unit comprises a drive shaft 62 and two constant velocity joints 60, 64, said constant velocity joints being located at each end of said drive shaft and, being extendible and retractable between the drive unit and the wheel;
- wherein the transmission unit comprises a gearbox aligning the rotational axis of the drive unit with the rotational axis of the wheel;
- wherein the drive shaft unit is mounted on the chassis above the transverse beam, and wherein the transmission unit includes a downwardly extending drive shaft.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 7, 16-18, and 20-22, as best understood and in the broadest interpretation, are rejected under 35 U.S.C. 103(a) as being unpatentable over Krude.

14. Regarding claim 7, as best understood and in the broadest interpretation, Krude discloses the claimed invention except for a drive unit provided for each wheel of a pair of wheels. However, to provide a drive unit provided for each wheel of a pair of wheels

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represents a change in number, not in kind and as such, would have been obvious to one of ordinary skill in the art. In re Harza, 124 USPQ 378.

15. Regarding claim 16, as best understood and in the broadest interpretation, Krude discloses a wheel suspension assembly as in the present invention comprising:

at least two spaced suspension members 52, 54 which are rotatably attachable to the chassis 10, 16, 16, each of the at least two suspension members being designed to rotatably receive a wheel 50;

a drive unit 24 which is mountable on the chassis; and

at least two transmission units 60, 62, 64, each of said at least two transmission units interconnecting one of said drive unit which are of said wheels, each of said transmission units transferring a drive force from said one of said drive units to said one of said wheels, the transmission unit being extendible and retractable between said one of said drive units and said one of said wheels.

But Krude does not disclose at least two drive units. However, to provide at least two drive units represents a change in number, not in kind and as such, would have been obvious to one of ordinary skill in the art. In re Harza, 124 USPQ 378.

16. With respect to claims 17, 18, and 20-22, Krude discloses suspension assembly:

- further comprising at least two pivots which are rotatably attachable to the chassis, each of said at least two suspension members being attached to one of said at least two pivots;
- wherein the suspension member 54 are trailing arm suspension units 70;

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- wherein each of said at least two transmission units comprises a constant velocity joint 60, 64 being extendible and retractable between each of said drive units and one of said wheels;
- wherein each of said at least two transmission units comprises a drive shaft 62 and two constant velocity joints 60, 64, said constant velocity joints being located at each end of said drive shaft and, being extendible and retractable between the drive unit and the wheel;
- wherein the each of said at least two transmission units comprises a gearbox aligning the rotational axis of the drive unit with the rotational axis of the wheel.

Allowable Subject Matter

17. Claims 11 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and as applicable, if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, and claim objection(s) set forth in this Office action.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joselynn Y. Sliteris whose telephone number is 703-308-8225. The examiner can normally be reached on Mon-Fri 8:30 am - 6:00 pm; alternating Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 703-308-2089. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-2571 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1134.

20. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 3616.

JYS *JYS*
October 1, 2002

Eric Culbreth
ERIC CULBRETH
PRIMARY EXAMINER

10/1/02